



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,099	12/01/2003	Atsushi Takehara	245953US2	1402
22850	7590	03/08/2006	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				BEATTY, ROBERT B
		ART UNIT		PAPER NUMBER
		2852		

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/724,099	TAKEHARA, ATSUSHI
	Examiner	Art Unit
	Robert Beatty	2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 December 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-40 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 14 December 2005 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1,4,29,30 are rejected under 35 U.S.C. 102(b) as being anticipated by JP# 2000-155516.

JP# '516 teach an image forming apparatus comprising a photosensitive drum 10, an endless transfer belt 14a for transporting a recording sheet between the transfer belt and the photosensitive drum in order for a toner image to be transferred to the recording medium. The speed ratio between the photosensitive drum (Vp) and the transfer belt (Vb) is variable set by an operator/serviceman. As described in paragraphs 51-53 and Table 1 of the translation, the speed of the photosensitive drum remains constant (300 mm/s) while the speed of the belt is varied ("made quick or late"). As described in paragraph 53, instead of making the velocity of the belt vary, one could make the velocity of the drum vary with the same result obtained.

2. Claims 21-24,37-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Castelli et al.'789

Castelli et al.'789 teach a color image forming apparatus comprises a plurality of image forming sections 14,16,18,20 including photosensitive drums 22, an intermediate transfer belt 10 for receiving the color images via primary transfer means 36, and a secondary transfer means 52,53 for transferring the color images from the intermediate transfer belt to a recording medium. The ratio of the speed of the intermediate transfer belt to the photosensitive drum speed is variably set via a calibration test performed every time a new component is installed in the image forming apparatus via an operator or serviceman (col. 8, lines 3-47). Thus it is considered that the velocity is variable by the user/serviceman since the user/service man precipitates a variation of speed by installing a new component. In addition, in this calibration test, the speed of the intermediate transfer belt remains constant while the speed of the drum is varied.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 13-16,33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castelli in view of Kobayashi (JP# 10-186786).

Castelli taught supra discloses most of what is claimed except the speed ratio between the intermediate transfer belt and the recording medium being variable while keeping the intermediate belt constant. Kobayashi teach an image forming apparatus which variable sets the speed ratio between the intermediate transfer belt and the photosensitive drum and the speed ratio between the intermediate transfer belt and the recording medium. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Castelli et al. with also variably setting the speed ratio between the intermediate transfer belt and the recording medium because a toner scattered image can be prevented from being formed as taught in Kobayashi. Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to change the intermediate belt/paper speed ratio by changing the speed of only the paper because one would not conflict with the Castelli reference which keeps the intermediate transfer belt constant while changing the photosensitive drum speed.

4. Claims 2-3,5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP# 2000-155516 in view of Castelli et al.

JP# '516 taught supra discloses most of what is claimed except the image forming apparatus being a color image forming apparatus. Castelli et al. teach a color image forming apparatus comprises a plurality of image forming sections 14,16,18,20. It would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify JP# '516 with Castelli et al. because a color toner image can be formed which is desirable.

5. Claims 7,10,31,32 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP# 2000-155516 in view of Fujimori et al.

JP# '516 taught supra disclose most of what is claimed except the speeds being variable depending on process velocities or the type of recording medium. Fujimoto et al. teach a color image forming apparatus comprising a photosensitive drum 10 and an intermediate transfer belt 16. According to a type of recording medium, the process speed of the image forming apparatus will change and consequently the photosensitive drum, intermediate transfer belt, and recording medium conveyance. It would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the speeds in JP# '516 in accordance with the type of recording medium/ process speeds because inferior reproduction can be prevented as taught in Fujimori et al.

6. Claims 8-9,11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP# 2000-155516 in view of Fujimori et al. as applied to claims 7,10,31,32 above, and further in view of Castelli et al.

JP# '516 and Fujimori et al. taught supra discloses most of what is claimed except the image forming apparatus being a color image forming apparatus. Castelli

et al. teach a color image forming apparatus comprises a plurality of image forming sections 14,16,18,20. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify JP# '516 with Castelli et al. because a color toner image can be formed which is desirable.

7. Claims 17-20,35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castelli et al. in view of Kobayashi (JP) as applied to claims 13-16,33-34 above, and further in view of Fujimori et al.

Castelli et al. and Kobayashi (JP) taught supra disclose most of what is claimed except the speeds being variable depending on process velocities or the type of recording medium. Fujimori et al. teach a color image forming apparatus comprising a photosensitive drum 10 and an intermediate transfer belt 16. According to a type of recording medium, the process speed of the image forming apparatus will change and consequently the photosensitive drum, intermediate transfer belt, and recording medium conveyance. It would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the speeds in accordance with the type of recording medium/ process speeds because inferior reproduction can be prevented as taught in Fujimori et al.

8. Claims 25-28, 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castelli et al. in view of Fujimori et al.

Castelli et al. taught supra disclose most of what is claimed except the speeds being variable depending on process velocities or the type of recording medium. Fujimoto et al. teach a color image forming apparatus comprising a photosensitive drum 10 and an intermediate transfer belt 16. According to a type of recording medium, the process speed of the image forming apparatus will change and consequently the photosensitive drum, intermediate transfer belt, and recording medium conveyance. It would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the speeds in accordance with the type of recording medium/ process speeds because inferior reproduction can be prevented as taught in Fujimori et al.

9. Applicant's arguments filed 12/14/2005 have been fully considered but they are not persuasive.

The examiner believes that the applicant has assigned non-criticality in the specification to the limitation of changing the speed ratio by changing the speed of only one element (see page 17, lines 6-10; page 20, lines 12-15). One of ordinary skill in the art would realize that a ratio could be changed by changing either element or both elements.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Beatty whose telephone number is (571) 272-2130. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley, can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR

only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert Beatty
Primary Examiner
Art Unit 2852

March 5, 2006